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10/000,190

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/000,190	10/19/2001	Stephen J. Sicola	P01-3684	9539
22879	7590	06/24/2005	EXAMINER	
HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400				JACOBS, LASHONDA T
ART UNIT		PAPER NUMBER		
2157				

DATE MAILED: 06/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/000,190	SICOLA ET AL.
	Examiner	Art Unit
	LaShonda T. Jacobs	2157

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 06 April 2005.  
 2a) This action is FINAL.                            2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-30 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-30 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_.  
 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_\_.  
 5) Notice of Informal Patent Application (PTO-152)  
 6) Other: \_\_\_\_\_.

**DETAILED ACTION*****Response to Amendment***

This is a Final Rejection in response to Applicants' Amendment/Request for Reconsideration filed on April 6, 2005. Claim 1 has been amended. Claims 1-30 have been presented for further examination.

***Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Initially it should be noted that –The instant application was filed on the same day as related application 10/086,599. Both applications have the same inventors.

Claim 9 of the instant application 10/000,190 is unpatentable under the judicially created doctrine of "obviousness-type" provisional double patenting with respect to claim 1 of related Application No. 10/086,599.

Application '190 claim 9 defines an obvious variation of the invention *claimed* in U.S. Application No. 10/086,599.

Claim 1 of the related application '599 contains all the limitations of claim 9 of the instant application '190 and as such claim 1 of '599 related application anticipates claim 9 of the '190 instant application. Claim 9 of the '190 instant application therefore is not patentably distinct from the '599 related application claim 1 and as such is unpatentable for obvious-type provisional double patenting (See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993)).

"A later patent claim is not patentably distinct from an earlier patent claim if the later claim is obvious over, or **anticipated by**, the earlier claim. In re Longi, 759 F.2d at 896, 225 USPQ at 651 (affirming a holding of obviousness-type double patenting because the claims at issue were obvious over claims in four prior art patents); In re Berg, 140 F.3d at 1437, 46 USPQ2d at 1233 (Fed. Cir. 1998) (affirming a holding of obviousness-type double patenting where a patent application claim to a genus is anticipated by a patent claim to a species within that genus). " ELI LILLY AND COMPANY v BARR LABORATORIES, INC., United States Court of Appeals for the Federal Circuit, ON PETITION FOR REHEARING EN BANC (DECIDED: May 30, 2001).

2. Claim 9 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/086,599.

This is a provisional obviousness-type double patenting rejection.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Martinez et al (hereinafter, "Martinez", U.S. Pat. No. 6,188,973).

As per claim 1, Martinez discloses a device positioning shelf of a multi-cabinet data storage cabinet in a mass storage system, comprising:

- a first interface providing a communication link with data path control device external the device (col. 6, lines 12-29; Martinez discloses a GUI interface to obtain component and status information from the computing system through communications links.) ;
- a second interface providing a communication link cabinet bus contained in the cabinet (col. 6, lines 12-29; Martinez discloses a PC/server interface that could interface with cabinet through communication links); and
- a processor creating and at least periodically broadcasting environmental messages comprising status information for the device over the cabinet bus via second interface and for collecting environmental messages broadcast by other ones of the devices over the cabinet bus and providing least a portion the collected environmental messages to the control device over the communication via the first interface (col. 10, lines 39-64; Martinez discloses GUI monitoring techniques that periodically polls each access device for status information in the shelves of the cabinets, the access device maintains a summary message of each device within its shelf).

As per claim 2, Martinez further discloses:

- memory storing a reporting group identifier indicating a reporting group assignment for the device, wherein the second interface is adapted to determine ones of the environmental messages broadcast on the cabinet bus broadcast by other devices

assigned reporting group and to transmit the determined ones the processor (abstract, col. 3, lines 19-37, col. 4, lines 56-65 and col. 6, lines 12-29).

As per claim 3, Martinez discloses:

- wherein the environmental messages broadcast by processor include the reporting group identifier (col. 5, lines 17-33).

As per claim 4, Martinez discloses:

- wherein the environmental messages broadcast by processor include an identifier for the cabinet and physical location information for the shelf in the cabinet (col. 5, lines 17-56).

As per claim 5, Martinez discloses:

- wherein the communication link comprises a fibre channel loop (col. 6, lines 21-29).

As per claim 6, Martinez discloses:

- wherein the device is an array controller (col. 5, lines 6-16).

As per claim 7, Martinez discloses:

- wherein the device positioned outside the cabinet (col. 8, lines 31-45).

### *Claim Rejections - 35 USC § 103*

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 9-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sicola et al (hereinafter, "Sicola", U.S. Pat. No. 5,938,776) in view of Martinez.

As per claim 9, Sicola discloses a mass storage system for providing unified system management, comprising:

- a first reporting group comprising an enclosure having an enclosure processor for generating and transmitting an environmental message for the first reporting group enclosure (col. 5, lines 28-49; Sicola discloses devices within the cabinets to communicate with the Environmental Unit to determine which devices in the cabinets are active.); and
- second reporting group comprising an enclosure having enclosure processor for generating and transmitting an environmental message for the second reporting group enclosure (col. 5, lines 28-49; Sicola discloses devices within the cabinets to communicate with the Environmental Unit to determine which devices in the cabinets are active).

However, Sicola does not explicitly disclose:

- bus communicatively linked to first reporting group enclosure and to the second reporting group enclosure for carrying the environmental messages, wherein the environmental messages includes information identifying whether the environmental message was sent from an enclosure the first or second reporting group and information for identifying a physical location of the sending enclosure.

In an analogous art, Martinez discloses a system and method for automatically mapping on a computer display a graphical representation of a physical arrangement of a plurality of computer components in one or more cabinets comprising:

- bus communicatively linked to first reporting group enclosure and to the second reporting group enclosure for carrying the environmental messages, wherein the environmental messages includes information identifying whether the environmental message was sent from an enclosure the first or second reporting group and information for identifying a physical location of the sending enclosure (abstract, col. 3, lines 19-37, col. 4, lines 56-65 and col. 6, lines 12-29).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the Martinez's teachings of a system and method for automatically mapping on a computer display a graphical representation of a physical arrangement of a plurality of computer components in one or more cabinets with the teachings of Sicola, for the purpose of automatically determining the components present in the computing system and to create a map of components and their locations thereby reducing possible human error [see Martinez, Col. 4, lines 1-9]. Thus Sicola provides the motivation to combine by detecting improper installed SCSI devices in order to prevent data corruption and parity errors due conflicts while allowing the SCSI subsystem to continue to operate [see Sicola, col. 2, lines 25-34].

As per claim 10, Sicola further discloses:

- a cabinet having shelves for positioning the enclosures and second reporting groups and for housing the bus (col. 5, lines 28-56).

As per claim 11, Sicola further discloses:

- an additional cabinet comprising shelves for positioning an additional enclosure of the first or the second reporting group and an additional bus linked the additional enclosure for carrying environmental messages to and from the additional enclosure other cabinet (col. 4, lines 40-43 and col. 5, lines 28-56).

As per claim 12, Sicola further discloses:

- a cabinet communication network linked to each of the cabinets for transmitting environmental messages between the cabinets (col. 5, lines 28-56).

As per claim 13, Sicola discloses the invention substantially as claims discussed above.

However, Sicola does not explicitly disclose:

- wherein each of the cabinets includes a cabinet processor linked to the cabinet communication network and the busses adapted to receive the environmental messages, to determine based on the reporting group identifying information whether enclosures in the particular cabinet are in a matching reporting group, and if a match is determined, transmitting the received environmental message the bus.

In an analogous art, Martinez discloses a system and method for automatically mapping on a computer display a graphical representation of a physical arrangement of a plurality of computer components in or more cabinets comprising:

- wherein each of the cabinets includes a cabinet processor linked to the cabinet communication network and the busses adapted to receive the environmental messages, to determine based on the reporting group identifying information whether enclosures in the particular cabinet are in a matching reporting group, and if a match is determined,

transmitting the received environmental message the bus (abstract, col. 3, lines 19-37, col. 4, lines 56-65 and col. 6, lines 12-29).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the Martinez's teachings of a system and method for automatically mapping on a computer display a graphical representation of a physical arrangement of a plurality of computer components in one or more cabinets with the teachings of Sicola, for the purpose of automatically determining the components present in the computing system and to create a map of components and their locations thereby reducing possible human error [see Martinez, Col. 4, lines 1-9]. Thus Sicola provides the motivation to combine by detecting improper installed SCSI devices in order to prevent data corruption and parity errors due conflicts while allowing the SCSI subsystem to continue to operate [see Sicola, col. 2, lines 25-34].

As per claim 14, Sicola discloses:

- wherein the enclosure processors are further adapted to receive ones environmental messages on the linked bus and to store memory the received ones determined based on the reporting group identifying information have been sent from the reporting group to which they belong (col. 5, lines 33-40).

As per claim 15, Sicola further discloses:

- a first data loop linked to the first reporting group and a second data loop linked to the second reporting group, wherein the enclosure processors are configured for transmitting environmental data for the first and second reporting groups, respectively,

and receive command data over the and second data loops, respectively (col. 5, lines 33-40).

As per claim 16, Sicola discloses:

- wherein a host device is linked to the first and second data loops for receiving the environmental data and for providing the command data (col. 5, lines 33-40).

As per claim 17, Sicola discloses:

- wherein a first device linked to the first data loop for receiving the environmental data from the first reporting group and providing the command data the first reporting group and second host device is linked to the second data loop for receiving environmental data from second reporting group and for providing the command data to the second reporting group (col. 5, lines 33-40).

As per claim 18, Sicola discloses:

- wherein a management linked the first and second host devices for receiving the environmental from the first and second reporting groups and for providing the command data first and second reporting groups (col. 5, lines 33-40).

As per claim 19, Sicola discloses data storage system, comprising:

- first set of enclosure devices assigned to a first reporting group positioned on the shelves in the cabinets and linked to at least one of the cabinet busses (col. 5, lines 28-49); and
- second set of enclosure devices assigned to a second reporting group positioned on the shelves in the cabinets and linked at least one of the cabinet busses (col. 5, lines 28-49);

- wherein each of the enclosure devices in the first and second reporting group includes an enclosure processor adapted for transmitting an enclosure environmental message over the linked cabinet bus (col. 5, lines 28-49).

However, Sicola does not explicitly disclose:

- a plurality of cabinets each having a plurality shelves for receiving and linking computing devices and a cabinet bus linked to shelves for communicatively linking computing devices inserted the shelves (abstract, col. 3, lines 19-37, col. 4, lines 56-65 and col. 6, lines 12-29).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the Martinez's teachings of a system and method for automatically mapping on a computer display a graphical representation of a physical arrangement of a plurality of computer components in one or more cabinets with the teachings of Sicola, for the purpose of automatically determining the components present in the computing system and to create a map of components and their locations thereby reducing possible human error [see Martinez, Col. 4, lines 1-9]. Thus Sicola provides the motivation to combine by detecting improper installed SCSI devices in order to prevent data corruption and parity errors due conflicts while allowing the SCSI subsystem to continue to operate [see Sicola, col. 2, lines 25-34].

As per claim 20, Sicola discloses:

- wherein the environmental messages from the enclosure devices the first and second reporting groups are transmitted substantially concurrently (col. 5, lines 28-49).

As per claim 21, Sicola discloses:

- wherein at least one the enclosure devices in the first reporting group and least one of the enclosure devices the second reporting group are located in one of the cabinets (col. 5, lines 28-49).

As per claim 22, Sicola discloses:

- wherein a subset of the enclosure devices in the first set are positioned first one of the cabinets and a second subset of the enclosure devices in the first set are positioned second one the cabinets (col. 5, lines 28-49).

As per claim 23, Sicola further discloses:

- a first data loop communicatively linking each the enclosure devices in the first reporting group and a second data loop communicatively linking each of the enclosure devices the second reporting group, wherein the first and second data loops are distinct data paths from each other and from the cabinet busses (col. 5, lines 33-40).

As per claim 24, Sicola further discloses:

- a host device linked to the first data loop and a second host device linked to the second data loop for communicating command sets each of the reporting groups and monitoring each reporting groups (col. 5, lines 33-40).

As per claim 25, Sicola further discloses:

- a host device linked to first and second data loops for monitoring and controlling the first and second reporting groups with command sets transmitted over the first and second data loops (col. 5, lines 33-40).

As per claim 26, Sicola further discloses:

- a cabinet network linked to each of cabinets for transferring the environmental messages between cabinet busses in differing ones the cabinets (col. 4, lines 40-43 and col. 5, lines 28-56).

As per claim 27, Sicola discloses:

- wherein the enclosure environmental messages include information identifying for a sending one of the enclosure devices assigned reporting group, one of the cabinets housing the sending enclosure device, and one of the shelves containing the sending enclosure device.

As per claim 28, Sicola further discloses:

- cabinet processors between the cabinet network and each cabinet busses, wherein the cabinet processors broadcast on the adjacent cabinet bus ones the environmental messages on the cabinet network based on the assigned reporting group information relating to ones of the reporting groups housed in the cabinet linked to the particular cabinet processor (col. 4, lines 40-43 and col. 5, lines 28-56).

As per claim 29, Sicola discloses:

- wherein enclosure processors are adapted to monitor the enclosure environmental messages on the linked cabinet bus and to store environmental information from ones the messages which the assigned reporting group matches their reporting group (col. 4, lines 40-43 and col. 5, lines 28-56).

As per claim 30, Sicola discloses:

- wherein one the enclosure devices in each of the first and second reporting groups is designated as a primary reporting device, the primary reporting device being configured

to receive command sets from control devices path, transfer the command sets other ones of the enclosure devices environmental information to the control devices via the data path (col. 4, lines 40-43 and col. 5, lines 28-56).

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Martinez in view of Coffey et al (hereinafter, "Coffey", U.S. Pub. No. 2002/0010883).

As per claim 8, Martinez discloses the invention substantially as claims discussed above.

However, Martinez does not explicitly disclose:

- wherein the broadcast environmental messages comprise SCSI-3 Enclosure (SES) data.

Coffey discloses a method of performance monitoring in a storage enclosure comprising:

- wherein the broadcast environmental messages comprise SCSI-3 Enclosure (SES) data (paragraph 34).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use SES data, as disclosed by Coffey, in the system of Martinez since this would comply with a standard that is commonly used in the industry.

#### *Response to Arguments*

8. Applicant's arguments filed April 6, 2005 have been fully considered but they are not persuasive.

**The Office notes the following arguments:**

- a. Nothing in this text discloses (or even suggests) the structure of a cabinet bus, as recited in claim 1, or an interface for providing a communication line with a cabinet bus or a processor that collects information broadcast over the cabinet bus, as recited in claim 1. Therefore, the '973 patent cannot anticipate independent claim 1.
- b. The '776 patent neither discloses nor suggests that the storage devices are divided into respective first and second reporting groups.
- c. The '776 patent fails to disclose or suggest "a bus communicatively linked to the first reporting group enclosure for carrying the environmental messages, wherein the environmental messages includes information for identifying whether the environmental message was sent from an enclosure in the first or second reporting group and information for identifying a physical location of the sending enclosure" as recited in claim 9.
- d. The '776 patent fails to disclose or suggest that devices are divided into first and second reporting groups, as recited in claim 9.
- e. Further, the '973 patent fails to disclose or suggest a bus communicatively linked to the first reporting group enclosure and the second reporting group enclosure.

**In response to:**

(a) -(e), Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. In this instance Applicants' are encourage to explicitly point out and clearly distinguish how the prior art '776 and '973 cabinet structure is different from the claimed invention.

*Conclusion*

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

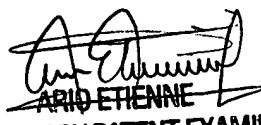
Any inquiry concerning this communication or earlier communications from the examiner should be directed to LaShonda T. Jacobs whose telephone number is 571-272-4004. The examiner can normally be reached on 8:30 A.M.-5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 571-272-4001. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LaShonda T Jacobs  
Examiner  
Art Unit 2157

ltj  
June 20, 2005

  
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